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Docket No. MRI-T108
Serial No. 09/954,720In the Specification

Please replace the paragraph at page 2, line 16 with the following amended paragraph:

Figure 1 shows an Axial section of through the invented guide wire.

Figures 2A and 2B show a connection of the distal part and the main part of a guide wire using glue.

Figure 3 shows a connection of the distal part and the main part of a guide wire where the distal part is pinched onto the main part.

Figure 4 shows a connection of the distal part and the main part of a guide wire with shrink-down plastic tubing.

Figure 5 shows a main part with a core material.

Please replace the paragraph at page 2, line 18 with the following amended paragraph:

Figure 1 shows an axial section of the invented guide wire, consisting of a distal metallic part 2 and an MRI-inert main part 4 as well as a connection 3 between both parts. The metallic distal part, which can be pre-bent by 90° as shown in the figure, serves as a sufficiently rigid and thus guidable piece to guide the wire through the vessels into defined vascular shunts. The main part 4 of the guide wire needs to be designed to solely carry and transmit the pressure applied from the proximal end towards the distal end for the advance of the metallic distal part 2 attached by the connection 3. The distal part 2 is also essential as it can be imaged due to its susceptibility artifact. The wire dimensions need to be designed in a way that the distal part provides sufficiently small artifacts that do not obscure the vessels. The elasticity may be the same as with normal, MRI incompatible guide wires designed for x-ray fluoroscopy or x-ray CT, using, for example, nickel-titanium or another flexible titanium alloy.

Please replace the paragraph at page 2, line 29 with the following amended paragraph:

Metallic distal part 2 can comprise nickel-titanium or a stainless steel alloy, for example. Due to the short length of this distal part 2, the current or voltage induced on this part will be low enough to incur neither a considerable overheating of the surrounding tissue nor local vascular burns. Such distal part 2 is, therefore, approx. 5 to 15 cm, typically 8 to 10 long with a total catheter length

of 60 to 200 cm. The diameter of the distal part 2 varies between 0.1 mm (neuro applications) and 1.5 mm (large leg vessels), typically between 0.6 and 0.8 mm.

Please replace the paragraph at page 2, line 35 with the following amended paragraph:

The long main part 4 of the guide wire is manufactured of an artificial material supporting and transmitting the guiding pressure from the proximal end to the distal end. The main part 4 is designed of plastics so that neither current nor voltage is induced. This main part 4 is an insulator or has a very high electric resistance, preventing any overheating and thus local burn effects for the patient. The artificial material can be, for example, polypropylene (PP), polyethylene (PE), polyetherimides (PEI), or polyetheretherketone (PEEK). In one embodiment, as shown in Figure 5, MRI-inert plastics main part 4 has a core 7 in the center of main part 4. In an embodiment, the core can comprise an insulant material.

Please replace the paragraph at page 3, line 1 with the following amended paragraph:

The connection 3 can be designed in different ways. It could be glued or glued as shown in Figures 2A and 2B, or the main part 4 can be is pinched over or under the distal front part 2 at the connection 3. Screwing connections would also be feasible, as well as a diminution of the main part at its front end which could then lead into the interior of the distal part 2 and be glued or pinched, as shown in Figure 3 using crimp 5, therein. In another embodiment, as shown in Figure 4, main part 4 and distal part 2 are connected by shrink-down plastic tubing.

Please replace the paragraph at page 3, last paragraph with the following amended paragraph:

Names

- 1 Guide wire
- 2 Distal part
- 3 Connection
- 4 Main part of the guide wire
- 5 Crimp
- 6 Shrink-tube

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7 Core

8 Gluc